

REMARKS

Claims 1-7 are pending and under consideration.

In the Office Action of December 21, 2006, claims 1-7 were rejected as anticipated by Pelhos et al (USP 7094483) under 35 USC 102(e).

In response, and without conceding the merits of the rejection, claim 1 has been amended to recite that the thickness of the single-layered magnetic layer is from 40 nm to 100 nm. Additionally, it is specified that the medium is specially configured for recording and reproduction with a magnetoresistive magnetic head or a giant magnetoresistive magnetic head.

Regardless of what else Pelhos et al might teach, it does not disclose or fairly suggest the recited medium having a single-layered magnetic layer within the recited thickness range and having the recited coercive force characteristics. Moreover, Pelhos et al is directed to a medium not useful with MR or giant MR heads. This is a significant distinction because it is well known that different magnetic heads will interact differently with different recording media. Indeed, it is well known that there is a need to match the magnetic characteristics of the media to the type of head used in the recording/reproducing system to obtain the best results (and in some cases, any results at all).

The head/medium is further an issue in slide contact recording/reproduction because of the direct contact between the magnetic gap area and the medium.

As noted in the background section of the application, instead of inductive magnetic heads, magnetoresistive magnetic heads (MR heads) or giant magnetoresistive magnetic heads (GMR heads) have been applied to magnetic heads to be used during reproduction of recorded information in the recently appearing thin-film magnetic layers. These MR heads and GMR heads are advantageous in terms of improvement of recording density because they can detect even a slight amount of magnetic flux leakage from magnetic layers with high sensitivity. However, MR heads and GMR heads have a detection limit at which its sensitivity to magnetic flux leakage is saturated, so that the MR and GMR heads cannot detect magnetic flux leakage greater than their design limitations. Accordingly, it is necessary to optimize their sensitivity to magnetic flux leakage by decreasing the film thickness of magnetic layers of magnetic recording media, i.e., the medium must have a coercive force limit so as not to overwhelm the heads. See, paragraphs [0009] and [0010] of the published application **2004/0214044**.

As also noted in the application, the obliquely evaporated magnetic tape media which are improved in their recording and reproduction characteristics relative to the opposite directions by

the techniques described in Japanese Patent Application Laid-Open No. 4-353622 and Japanese Patent Application Laid-Open No. 9-73621 have two magnetic layers which differ from each other in their growth directions, so that a magnetic-layer deposition process needs to be performed twice. This leads to cost increases of the magnetic recording media. In the recent tape storage market, it is very important and indispensable to decrease the cost of magnetic recording media, in terms of acquisition of the market. See, paragraph [0026].

In Japanese Patent Application Laid-Open No. 4-353622, the total thickness of the magnetic layer is made 160 nm to 200 nm, and in the embodiment of Japanese Patent Application Laid-Open No. 9-73621 as well, since the two magnetic layers each having a thickness of 60 nm are stacked, the total thickness of the magnetic layers is 180 nm. Yet, as mentioned above, MR heads and GMR heads have high sensitivity, and if the thicknesses of their magnetic layers are set within this range, the heads become saturated and cannot detect magnetic flux leakage. In Japanese Patent Application Laid-Open No. 2000-339605, although the thickness of the magnetic layer is defined, the applied field angle dependence of the coercive force and the magnetic anisotropy of the magnetic layer are not particularly mentioned. See paragraph [0027].

Pelhos et al. nowhere fairly suggests the recited single-layered magnetic layer medium have the recited characteristics.

Accordingly, it is submitted that claims 1-7 are patentable and that the application is in condition for allowance. Notice to that effect is requested.

Respectfully submitted,

Dated: March 21, 2007

By: /David R. Metzger/
David R. Metzger (Reg. No 32,919)
SONNENSCHN NATH & ROSENTHAL
P.O. Box 061080
Wacker Drive Station - Sears Tower
Chicago, Illinois 60606-1080
Phone: (312) 876-8000